LOUISIANA DEPARTMENT OF ENVIRONMENTAL QUALITY
OFFICE OF ENVIRONMENTAL SERVICES

STATEMENT OF BASIS[1]

PROPOSED PART 70 OPERATING PERMIT 0840-00009-V1

BATON ROUGE PLANT
UOP, LLC – BATON ROUGE
BATON ROUGE, EAST BATON ROUGE PARISH, LOUISIANA
Agency Interest (AI) No. 1413
Activity No.: PER20090005

I. APPLICANT

The applicant is: UOP, LLC – Baton Rouge
1200 Airline Hwy
Baton Rouge, LA 70805

Facility: Baton Rouge Plant

SIC Code: 2819

Location: The UOP Baton Rouge Plant is located at 1200 Airline Hwy in Baton Rouge, East Baton Rouge Parish, Louisiana. The facility is bounded on the north by Highway 190; on the south by the ExxonMobil Refinery; on the East by Highway 61; and on the west by the Mississippi River.

II. PERMITTING AUTHORITY

The permitting authority is: Louisiana Department of Environmental Quality
Office of Environmental Services
P.O. Box 4313
Baton Rouge, Louisiana 70821-4313

III. CONTACT INFORMATION

Additional information may be obtained from:

Dr. Hassan Ghosn
P.O. Box 4313
Baton Rouge, Louisiana 70821-4313
Phone: (225) 219-3113

[1] 40 CFR 70.7(a)(5) and LAC 33:III.531.A.4 require the permitting authority to "provide a statement that sets forth the legal and factual basis for the proposed permit conditions of any permit issued to a Part 70 source, including references to the applicable statutory or regulatory provisions."

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IV. FACILITY BACKGROUND AND CURRENT PERMIT STATUS

The Baton Rouge plant was originally built by the United States Government in the mid 1940's through the Defense Plant Corporation and operated by the Aluminum Company of America (ALCOA). After World War II, Kaiser Aluminum and Chemical Corporation purchased the property. The plant was expanded in 1951. At that time, the plant consisted of two operations: the facility north of the Mississippi Bridge was the metals operation, while the facility south of the bridge produced the trihydrate alumina. Permit No. 111 was issued on June 8, 1972 to install a drier for the substrate alumina spheres. The drier is no longer in service. Permit No. 559 was issued on February 10, 1976 to produce a new aluminum refractory material which included an aluminum fluoride compound. The reactivation of the No. 1 Kiln was permitted under Permit No. 604, issued on May 25, 1976. Operations of the kiln ceased in 1983. Permit No. 745 was issued on May 20, 1977 to allow for increased production of the material authorized in Permit No. 559. In addition, the permit approved new bauxite storage and handling on property purchased just north of the bridge. Permit No. 1575 was issued on July 6, 1981 to allow for the four rotary kilns of the metals plant to be replaced with fluidized bed calciners. Construction began but was never completed. Permit No. 1576 was also issued on July 6, 1981 to expand the production of substrate alumina and tabular alumina in the chemicals plant. The tabular expansion modification was never built. Permit No. 1847T was issued on April 29, 1983 to install a Package Steam Boiler and a Hydrate unloading Bin. These pieces of equipment were installed to allow for the permanent shutdown of the metals plant on the north side of the Mississippi River Bridge. Permit No. 1975 was issued on January 19, 1988 to add a special active production process which includes pelletizing versal alumina and active alumina. Effective July 27, 1988, LaRoche Chemicals, Inc. purchased the chemicals facility. The change of ownership was approved on August 11, 1994. Permit No. 2121 was issued on March 6, 1992 to allow for the construction of the "C" Active production line. The permit was administratively amended on April 14, 1994 to incorporate the result of stack test on the Flash Calciner Vent, EP C-73. Permit 0840-00009-01 was issued on November 16, 1992 for a specialty alumina products designated as the Stone Project which includes EP C-85 and C-86. Emission Point C-85 was never constructed. The facility was issued an owner name change to LaRoche Industries on August 22, 1994. The facility was issued a change in ownership on October 19, 1999, from LaRoche Industries to UOP, LLC.

A modification consisting of reconciling various sources and emissions based on the operation since the change of ownership; modifying the operation to include the production of an alumina product with a copper additive; replacing an existing boiler with a new (used) package boiler; and obtaining a Part 70 Operating permit was approved and Permit No. 0840-00009-V0 was issued May 16, 2005, under which UOP Baton Rouge Plant currently operates.

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This will be the Part 70 operating permit for the UOP, LLC – Baton Rouge Facility. The Baton Rouge Plant is presently operating under Permit No. 0840-00009-V0, issued May 16, 2005.

This permit addresses all emissions unit at the Baton Rouge Plant.

V. PROPOSED PERMIT/PROJECT INFORMATION

A permit application and Emission Inventory Questionnaire (EIQ) dated October 15, 2009, were received requesting a permit renewal and modification. The application was deemed administratively complete in accordance with LAC 33:III.519.A on October 19, 2009.

Additional information dated February 1, 2010 was also received.

Process Description

UOP, LLC – Baton Rouge Plant (UOP Baton Rouge) consists of two processing areas – the "Actives" Plants and the "Versal" Plants. The Actives Plants contain one calcining oven and two "Activator" ovens (dryers). The Versal Plants contain two spray dryers. The Active Plants produce activated alumina from aluminum trihydrate, which is obtained from a supplier, while the Versal Plants produce precipitated alumina from sodium aluminate.

The "Actives" plants comprise the Active A, Active B, and Active Powder plants. The Active Powder plant is mostly used to produce feedstock for plants A and B. However, some of the product from the Active Powder plant is sold directly as product. In the active process, activated alumina is produced from aluminum trihydrate. The aluminum trihydrate is milled to the desired particle size and dried in the flash calciner. The flash calcined alumina (FCA) is collected in hoppers and transferred to a nodulizer or pelletizer. Water and/or other additives (zeolite, lime or copper carbonate) are combined with the FCA to form pellets. Zeolites are occasionally used with FCA as the feedstock for active B, while lime is used exclusively with FCA for feedstock to Active A. The FCA pellets are then activated in the Activator oven, which removes free water and some of the chemically bound water. The activated alumina product is then screened and stored in product bins prior to packaging for off-site shipment.

The "Versal" plants comprise the Versal I and Versal II plants. The main feedstock for the Versal plants is sodium aluminate. This material is either purchased from a supplier or is produced onsite by reacting aluminum trihydrate (the feedstock for the Actives plants) with a caustic solution in a digester. The sodium aluminate solution is then combined with either

hydrochloric acid and water or aluminum chloride and water in the Versal reactor. Alumina is precipitated from this reaction mixture. The solution is then sent to a filtration processing step that separates the precipitated alumina material from the reaction mixture. The alumina material is washed and dewatered and then fed to a spray dryer. The precipitated alumina product is then screened and stored in product bins prior to packaging for off-site shipment.

The Pilot Plant serves as a research and development unit as well as an intermittent limited production unit, operating similarly to the manufacturing units at the UOP facility. A wide variety of chemical raw materials, intermediates, and products are studied in the Pilot Plant. This plant is capable of making essentially all intermediates and products produced at the UOP facility, plus many others that can only be produced in the Pilot Plant. The Pilot Plant is utilized for the following main activities:

- To conduct process improvement studies for waste minimization and yield improvement;
- To study, develop and optimize manufacturing and new processes;
- To produce specialty products on an as-needed basis;
- To gather data for the design of commercial scale plants; and
- To produce small quantities of various products for customer evaluation where large scale production in the existing plant is not practical or possible.

Proposed Modifications

UOP Baton Rouge proposes the following changes at the facility:

1. Addition of a separate Bin Vent Dust Collector (Source ID C-116). The vent from this Bin is currently routed to Source ID C-10. This is needed to eliminate moisture currently entering this Bin from the other points routed to the Active B Process Points Dust Collector (Source ID C-10);
2. Installation of a separate dust collector on Active B bin vent, Emission Point C-116. The emissions from the bin are currently routed to Active B Process Points Duct Collector, Emission Point C-10.
3. Deletion of Emission Points associated with the Active C Plant, as this unit has been demolished. This request results in the removal of the following three emission points from the permit: EQT042 (C-72) - Active C Activator Dust Collector, EQT044 (C-74) - Active C Nodulizer Feed Bin Dust Collector, and EQT045 (C-75) - Active C Process Points Dust Collector;

4. Redefining fugitive emissions point FUG005 (C-83). This fugitive emissions point is named "Active C Fugitive Emissions" in the current Title V permit. However, this emissions point has always served as the collective fugitive emissions from both the Active Powders and Active C Plants due to the proximity of the equipment. The UOP Baton Rouge Plant requests that this fugitives emission point now be named "Active Powder Fugitive Emissions" since the Active C Plant has been demolished;
5. Deletion of Emission Point EQT012 (C-104) - Formic Acid Tank, as this tank has been removed from service and demolished;
6. Incorporation of Compliance Assurance Monitoring (CAM) regulations, as applicable;
7. Additions, changes, and updates to the Insignificant Activities and General Condition XVII Activities included in the Title V Permit;
8. Update of the descriptions, as presented in this application, for Source IDs C-102 and C-103 to better match records at the facility;
9. Removal of Tank C-601 (routed to Source ID C-84) from the permit, as this tank has been demolished; and
10. Request to update all specific requirements in the permit that currently state "Visible emissions monitored by visual inspection/determination daily" to be restated as "Visible emissions monitored by visual inspection/determination daily during operation (when in service)".

VI. ATTAINMENT STATUS OF PARISH

Pollutant	Attainment Status	Designation
$PM_{2.5}$	Attainment	N/A
PM_{10}	Attainment	N/A
SO_2	Attainment	N/A
NO_2	Attainment	N/A
CO	Attainment	N/A
Ozone[2]	Nonattainment	Nonattainment
Lead	Attainment	N/A

[2] VOC and NO_X are regulated as surrogates.

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VII. PERMITTED AIR EMISSIONS

Sources of air emissions are listed on the "Inventories" page of the proposed permit.

Estimated emissions of criteria pollutants from the facility, in tons per year (TPY), are as follows:

Pollutant	Before	After	Change
PM_{10}	49.26	48.54	- 0.72
SO_2	0.94	0.92	- 0.02
NO_X	47.31	47.28	- 0.03
CO	39.98	39.47	- 0.51
VOC	3.35	3.10	- 0.25

PM_{10} and VOC compounds classified as LAC 33:III.Chapter 51-regulated toxic air pollutants (TAP) are speciated below. This list encompasses all Hazardous Air Pollutants (HAP) regulated pursuant to Section 112 of the Clean Air Act. Note, however, all TAPs are not HAPs (e.g., ammonia, hydrogen sulfide).

Pollutant	Before	After	Change
Chlorine	0.01	0.01	-
Copper (and compounds)	0.50	0.50	-
Hydrochloric Acid	0.09	0.09	-
Sulfuric Acid	<0.01	<0.01	-
2,2,4-Trimethylpentane	<0.01	<0.01	-
Benzene	<0.01	<0.01	-
Ethyl benzene	<0.01	<0.01	-
Methyl Tertiary Butyl Ether	0.04	0.04	-
n-Hexane	<0.01	<0.01	-
Polynuclear Aromatic Hydrocarbons	<0.01	<0.01	-
Toluene	<0.01	<0.01	-
Xylene (mixed isomers)	<0.01	<0.01	-

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Baton Rouge Plant is a major source of criteria pollutants, a minor source of HAPs, and a minor source of TAPs.

Permitted limits for individual emissions units and groups of emissions units, if applicable, are set forth in the tables of the proposed permit entitled "Emission Rates for Criteria Pollutants" and "Emission Rates for TAP/HAP & Other Pollutants." These tables are part of the permit.

Emissions calculations can be found in Appendix A of the permit application. The calculations address the manufacturer's specifications, fuel composition (e.g., sulfur content), emissions factors, and other assumptions on which the emissions limitations are based and have been reviewed by the permit writer for accuracy.

General Condition XVII Activities

Very small emissions to the air resulting from routine operations that are predictable, expected, periodic, and quantifiable and that are submitted by the applicant and approved by the Air Permits Division are considered authorized discharges. These releases are not included in the permit totals because they are small and will have an insignificant impact on air quality. However, such emissions are considered when determining the facility's potential to emit for evaluation of applicable requirements. Approved General Condition XVII activities are noted in Section VIII of the proposed permit.

Insignificant Activities

The emissions units or activities listed in Section IX of the proposed permit have been classified as insignificant pursuant to LAC 33:III.501.B.5. By such listing, the LDEQ exempts these sources or types of sources from the requirement to obtain a permit under LAC 33:III.Chapter 5. However, such emissions are considered when determining the facility's potential to emit for evaluation of applicable requirements.

VIII. REGULATORY APPLICABILITY

Regulatory applicability is discussed in three sections of the proposed permit: Section X (Table 1), Section XI (Table 2), and Specific Requirements. Each is discussed in more detail below.

Section X (Table 1): Applicable Louisiana and Federal Air Quality Requirements

Section X (Table 1) summarizes all applicable federal and state regulations. In the matrix, a "1" represents a regulation applies to the emissions unit. A "1" is also used if the emissions unit is exempt from the emissions standards or control requirements of the regulation, but monitoring, recordkeeping, and/or reporting requirements apply.

A "2" is used to note that the regulation has requirements that would apply to the emissions unit, but the unit is exempt from these requirements due to meeting a specific criterion, such as it has not been constructed, modified, or reconstructed since the regulation has been effective. If the specific criterion changes, the emissions unit will have to comply at a future date. Each "2" entry is explained in Section XI (Table 2).

A "3" signifies that the regulation applies to this general type of source (e.g., furnace, distillation column, boiler, fugitive emissions, etc.), but does not apply to the particular emissions unit. Each "3" entry is explained in Section XI (Table 2).

If blank, the regulation clearly does not apply to this type of emissions unit.

Section XI (Table 2): Explanation for Exemption Status or Non-Applicability of a Source

Section XI (Table 2) of the proposed permit provides explanation for either the exemption status or non-applicability of given federal or state regulation cited by 2 or 3 in the matrix presented in Section X (Table 1).

Specific Requirements

Applicable regulations, as well as any additional monitoring, recordkeeping, and reporting requirements necessary to demonstrate compliance with both the federal and state terms and conditions of the proposed permit, are provided in the "Specific Requirements" section. Any operating limitations (e.g., on hours of operation or throughput) are also set forth in this section. Associated with each Specific Requirement is a citation of the federal or state regulation upon which the authority to include that Specific Requirement is based.

1. Federal Regulations

40 CFR 60 – New Source Performance Standards (NSPS)

No NSPS provisions are applicable to the Baton Rouge Plant.

40 CFR 61 – National Emission Standards for Hazardous Air Pollutants (NESHAP)

The following subpart is applicable at the Baton Rouge Plant: M. Applicable emission standards, monitoring, test methods and procedures, recordkeeping, and reporting requirements are summarized in the "Specific Requirements" section of the proposed permit.

40 CFR 63 – Maximum Achievable Control Technology (MACT)

No MACT provisions are applicable to the Baton Rouge Plant.

Clean Air Act §112(g) or §112(j) – Case-By-Case MACT Determinations

A case-by-case MACT determination pursuant to §112(g) or §112(j) of the Clean Air Act was not required.

40 CFR 64 – Compliance Assurance Monitoring (CAM)

Per 40 CFR 64.2(a), CAM applies to each pollutant-specific emissions unit (PSEU) that 1) is subject to an emission limitation or standard, 2) uses a control devices to achieve compliance, and 3) has potential pre-control device emissions that are equal to or greater than 100 percent of the amount, in TPY, required for a source to be classified as a major source.

The following emissions units are subject to CAM: EQT009, EQT019, EQT022, EQT025, QT026, EQT027, EQT041, EQT043, EQT047, and EQT050. Applicable CAM provisions have been incorporated into the proposed permit as Specific Requirements 1 – 16, 33 – 47, and 55 – 68.

Acid Rain Program

The Acid Rain Program, 40 CFR Part 72 – 78, applies to the fossil fuel-fired combustion devices listed in Tables 1-3 of 40 CFR 73.10 and other utility units, unless a unit is determined not to be an affected unit pursuant to 40 CFR 72.6(b). LDEQ has incorporated the Acid Rain Program by reference at LAC 33:III.505. Baton Rouge Plant is not subject to the Acid Rain Program.

2. SIP-Approved State Regulations

Applicable state regulations are also noted in Section X (Table 1) of the proposed permit. Some state regulations have been approved by the U.S. Environmental Protection Agency (EPA) as part of Louisiana's State Implementation Plan (SIP). These regulations are referred to as "SIP-approved" and are enforceable by both LDEQ and EPA. All LAC 33:III.501.C.6 citations are federally enforceable unless otherwise noted.

3. State-Only Regulations

Individual chapters or sections of LAC 33:III noted by an asterisk in Section X (Table 1) are designated "state-only" pursuant to 40 CFR 70.6(b)(2). Terms and conditions of the proposed permit citing these chapters or sections are not SIP-approved and are not subject to the requirements of 40 CFR Part 70. These terms and conditions are enforceable by LDEQ, but not EPA. All conditions not designated as "state-only" are presumed to be federally enforceable.

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IX. NEW SOURCE REVIEW (NSR)

1. Prevention of Significant Deterioration (PSD)

Baton Rouge Plant is located in an ozone nonattainment area; therefore, the PSD does not apply

2. Nonattainment New Source Review (NNSR)

The renewal and modification of the Baton Rouge Plant do not result in any increase in NO_X, VOC or ozone. Thus, NNSR review is not required.

3. Notification of Federal Land Manager

The Federal Land Manager (FLM) is responsible for evaluating a facility's projected impact on the Air Quality Related Values (AQRV) (e.g., visibility, sulfur and nitrogen deposition, any special considerations concerning sensitive resources, etc.[3]) and recommending that LDEQ either approve or disapprove the facility's permit application based on anticipated impacts. The FLM also may suggest changes or conditions on a permit. However, LDEQ makes the final decision on permit issuance. The FLM also advises reviewing agencies and permit applicants about other FLM concerns, identifies AQRV and assessment parameters for permit applicants, and makes ambient monitoring recommendations.

If LDEQ receives a PSD or NNSR permit application for a facility that "may affect" a Class I area, the FLM charged with direct responsibility for managing these lands is notified.

The meaning of the term "may affect" is interpreted by EPA policy to include all major sources or major modifications which propose to locate within 100 kilometers (km) of a Class I area. However, if a major source proposing to locate at a distance greater than 100 km is of such size that LDEQ or the FLM is concerned about potential impacts on a Class I area, LDEQ can ask the applicant to perform an analysis of the source's potential emissions impacts on the Class I area. This is because certain meteorological conditions, or the quantity or type of air emissions from large sources located further than 100 km, may cause adverse impacts. In order to determine whether a source located further than 100 km may affect a Class I area, LDEQ uses the Q/d approach.

Q/d refers to the ratio of the sum of the net emissions increase (in tons) of PM_{10}, SO_2, NO_X, and H_2SO_4 to the distance (in kilometers) of the facility from the nearest boundary of the Class I area.

[3] See http://www2.nature.nps.gov/air/Permits/ARIS/AQRV.cfm.

$$Q/d = \frac{PM_{10\,(NEI)} + SO_{2\,(NEI)} + NO_{X\,(NEI)} + H_2SO_{4\,(NEI)}}{\text{Class I km}}$$ [4]

Where:

$PM_{10\,(NEI)}$	=	net emissions increase of PM_{10}
$SO_{2\,(NEI)}$	=	net emissions increase of SO_2
$NO_{X\,(NEI)}$	=	net emissions increase of NO_X
$H_2SO_{4\,(NEI)}$	=	net emissions increase of H_2SO_4
Class I km	=	distance to nearest Class I area (in kilometers)

If $Q/d \geq 4$, LDEQ will formally notify the FLM in accordance with LAC 33:III.504.E.1.

In this instance,

$$Q/d = \frac{-0.72 + -0.02 + -0.03 + 0}{225} = -0.0034$$

Therefore, LDEQ has determined that the proposed project will not adversely impact visibility in Breton National Wildlife Refuge, the nearest Class 1 area.

X. ADDITIONAL MONITORING AND TESTING REQUIREMENTS

In addition to the monitoring and testing requirements set forth by applicable state and federal regulations (see Section VIII of this Statement of Basis), a number of "LAC 33:III.507.H.1.a" and/or "LAC 33:III.501.C.6" conditions may appear in the "Specific Requirements" section of the proposed permit. These conditions have been added where no applicable regulation exists or where an applicable regulation does not contain sufficient monitoring, recordkeeping, and/or reporting provisions to ensure compliance. LAC 33:III.507.H.1.a provisions, which may include recordkeeping requirements, are intended to fulfill Part 70 periodic monitoring obligations under 40 CFR 70.6(a)(3)(i)(B).

ID	Description	Pollutant	Method	Frequency
CRG001	Dust Collector	Visible emissions (PM_{10})	Visual inspection	Daily when in service
CRG002	Calciners/Dryers	Opacity (PM_{10})	Method 22/Method 9	Daily when in service
EQT049	Scrubber	Flow rate	Flow meter	Every 4 hours when in service

[4] If both NNSR and PSD review are required, the higher of the two "net emissions increase" values has been selected. The net emissions increase for NNSR and PSD purposes may be different due to differing contemporaneous periods. If the net emissions increase of any pollutant is negative, the value used in the equation has been set to zero. If the project did not trigger a netting analysis, LDEQ uses the project increase (see §504.A.3 (NNSR) and §509.A.4 (PSD)). In this case, the value will be less than the pollutant's significance level.

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XI. OPERATIONAL FLEXIBILITY

Emissions Caps

An emissions cap is a permitting mechanism to limit allowable emissions of two or more emissions units below their collective potential to emit (PTE). The proposed permit does establish only a flexibility emissions cap.

Alternative Operating Scenarios

LAC 33:III.507.G.5 allows the owner or operator to operate under any operating scenario incorporated in the permit. Any reasonably anticipated alternative operating scenarios may be identified by the owner or operator through a permit application and included in the permit. The proposed permit does not include an alternative operating scenario.

Streamlined Requirements

When applicable requirements overlap or conflict, the permitting authority may choose to include in the permit the requirement that is determined to be most stringent or protective as detailed in EPA's "White Paper Number 2 for Improved Implementation of the Part 70 Operating Permits Program" (March 5, 1996). The overall objective is to determine the set of permit terms and conditions that will assure compliance with all applicable requirements for an emissions unit or group of emissions units so as to eliminate redundant or conflicting requirements. The proposed permit does not contain streamlined provisions.

XII. PERMIT SHIELD

A permit shield, as described in 40 CFR 70.6(f) and LAC 33:III.507.I, provides an "enforcement shield" which protects the facility from enforcement action for violations of applicable federal requirements. It is intended to protect the facility from liability for violations if the permit does not accurately reflect an applicable federal or federally enforceable requirement.

The proposed permit does not establish a permit shield.

XIII. IMPACTS ON AMBIENT AIR

Emissions associated with the proposed modification were reviewed by the Air Quality Assessment Division to ensure compliance with the NAAQS and AAS. LDEQ did not require the applicant to model emissions.

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XIV. COMPLIANCE HISTORY AND CONSENT DECREES

The Baton Rouge Plant's compliance history can be found in Section 8 (Page 4) of the permit application. It must be disclosed per LAC 33:III.517.E and 517.D.12, if applicable.

Consolidated Compliance Order and Notice of Potential Penalty / Notice of Violation / Other Action AE-PP-08-0093, was issued on September 17, 2008. The aforementioned action has been reviewed by department personnel to determine the appropriateness of a compliance schedule consistent with 40 CFR 70.5(c)(8)(iii)(C) and 70.6(c)(3). The proposed permit does not establish a compliance schedule.

A settlement (Tracking No. SA-AE-09-0009) has been reached and became final on October 15, 2009.

XV. REQUIREMENTS THAT HAVE BEEN SATISFIED

The following state and/or federal obligations have been satisfied and are therefore not included as Specific Requirements.

Source ID	Citation	Description
NA		

XVI. OTHER REQUIREMENTS

Executive Order No. BJ 2008-7 directs all state agencies to administer their regulatory practices, programs, contracts, grants, and all other functions vested in them in a manner consistent with Louisiana's Comprehensive Master Plan for a Sustainable Coast and public interest to the maximum extent possible. If a proposed facility or modification is located in the Coastal Zone, LDEQ requires the applicant to document whether or not a Coastal Use Permit is required, and if so, whether it has been obtained. Coastal Use Permits are issued by the Coastal Management Division of the Louisiana Department of Natural Resources (LDNR).

The facility is not located in the Coastal Zone; therefore, a Coastal Use Permit is not required.

XVII. PUBLIC NOTICE/PUBLIC PARTICIPATION

Written comments, written requests for a public hearing, or written requests for notification of the final decision regarding this permit action may be submitted to:

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Ms. Soumaya Ghosn
LDEQ, Public Participation Group
P.O. Box 4313
Baton Rouge, Louisiana 70821-4313

Written comments and/or written requests must be received prior to the deadline specified in the public notice. If LDEQ finds a significant degree of public interest, a public hearing will be held. All comments will be considered prior to a final permit decision.

LDEQ will send notification of the final permit decision to the applicant and to each person who has submitted written comments or a written request for notification of the final decision.

The permit application, proposed permit, and this Statement of Basis are available for review at LDEQ, Public Records Center, Room 127, 602 North 5th Street, Baton Rouge, Louisiana. Viewing hours are from 8:00 a.m. to 4:30 p.m., Monday through Friday (except holidays). Additional copies may be viewed at the local library identified in the public notice. The available information can also be accessed electronically via LDEQ's Electronic Document Management System (EDMS) on LDEQ's public website, www.deq.louisiana.gov.

Inquiries or requests for additional information regarding this permit action should be directed to the contact identified on page 1 of this Statement of Basis.

Persons wishing to be included on the public notice mailing list or for other public participation-related questions should contact LDEQ's Public Participation Group at P.O. Box 4313, Baton Rouge, LA 70821-4313; by e-mail at maillistrequest@ldeq.org; or contact LDEQ's Customer Service Center at (225) 219-LDEQ (219-5337). Alternatively, individuals may elect to receive public notices via e-mail by subscribing to LDEQ's Public Notification List Service at http://www.doa.louisiana.gov/oes/listservpage/ ldeq_pn_listserv.htm.

Permit public notices can be viewed at LDEQ's "Public Notices" webpage, http://www.deq.louisiana.gov/apps/pubNotice/default.asp. Electronic access to each proposed permit and Statement of Basis current on notice is also available on this page. General information related to public participation in permitting activities can be viewed at www.deq.louisiana.gov/portal/tabid/2198/Default.aspx.

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APPENDIX A - ACRONYMS

AAS	Ambient Air Standard (LAC 33:III.Chapter 51)
AP-42	EPA document number of the Compilation of Air Pollutant Emission Factors
BACT	Best Available Control Technology
BTU	British Thermal Units
CAA	Clean Air Act
CAAA	Clean Air Act Amendments
CAM	Compliance Assurance Monitoring, 40 CFR 64
CEMS	Continuous Emission Monitoring System
CMS	Continuous Monitoring System
CO	Carbon monoxide
COMS	Continuous Opacity Monitoring System
CFR	Code of Federal Regulations
EI	Emissions Inventory (LAC 33:III.919)
EPA	(United States) Environmental Protection Agency
EIQ	Emission Inventory Questionnaire
ERC	Emission Reduction Credit
FR	Federal Register or Fixed Roof
H_2S	Hydrogen sulfide
H_2SO_4	Sulfuric acid
HAP	Hazardous Air Pollutants
Hg	Mercury
HON	Hazardous Organic NESHAP
IBR	Incorporation by Reference
LAER	Lowest Achievable Emission Rate
LDEQ	Louisiana Department of Environmental Quality
M	Thousand
MM	Million
MACT	Maximum Achievable Control Technology
MEK	Methyl ethyl ketone
MIK	Methyl isobutyl ketone
MSDS	Material Safety Data Sheet
MTBE	Methyl tert-butyl ether
NAAQS	National Ambient Air Quality Standards
NAICS	North American Industrial Classification System (replacement to SICC)

NESHAP	National Emission Standards for Hazardous Air Pollutants
NMOC	Non-Methane Organic Compounds

APPENDIX A - ACRONYMS

NOx	Nitrogen Oxides
NNSR	Nonattainment New Source Review
NSPS	New Source Performance Standards
NSR	New Source Review
OEA	LDEQ Office of Environmental Assessment
OEC	LDEQ Office of Environmental Compliance
OES	LDEQ Office of Environmental Services
PM	Particulate Matter
PM10	Particulate Matter less than 10 microns in nominal diameter
PM2.5	Particulate Matter less than 2.5 microns in nominal diameter
ppm	parts per million
ppmv	parts per million by volume
ppmw	parts per million by weight
PSD	Prevention of Significant Deterioration
PTE	Potential to Emit
RACT	Reasonably Available Control Technology
RBLC	RACT-BACT-LAER Clearinghouse
RMP	Risk Management Plan (40 CFR 68)
SICC	Standard Industrial Classification Code
SIP	State Implementation Plan
SO2	Sulfur Dioxide
SOCMI	Synthetic Organic Chemical Manufacturing Industry
TAP	Toxic Air Pollutants (LAC 33:III.Chapter 51)
TOC	Total Organic Compounds
TPY	Tons Per Year
TRS	Total Reduced Sulfur
TSP	Total Suspended Particulate
µg/m3	Micrograms per Cubic Meter
UTM	Universal Transverse Mercator
VOC	Volatile Organic Compound
VOL	Volatile Organic Liquid
VRU	Vapor Recovery Unit

STATEMENT OF BASIS

BATON ROUGE PLANT
UOP, LLC – BATON ROUGE

BATON ROUGE, EST BATON ROUGE PARISH, LOUISIANA
Agency Interest (AI) No. 1413
Activity No. PER20090005
Proposed Permit No. 0840-00009-V1

APPENDIX B – GLOSSARY

Best Available Control Technologies (BACT) – an emissions limitation (including a visible emission standard) based on the maximum degree of reduction for each pollutant subject to regulation under this Part (Part III) which would be emitted from any proposed major stationary source or major modification which the administrative authority, on a case-by-case basis, taking into account energy, environmental, and economic impacts and other costs, determines is achievable for such source or modification through application of production processes or available methods, systems, and techniques, including fuel cleaning or treatment or innovative fuel combustion techniques for control of such pollutant.

CAM - Compliance Assurance Monitoring – A federal air regulation under 40 CFR Part 64.

Carbon Monoxide (CO) – (Carbon monoxide) a colorless, odorless gas produced by incomplete combustion of any carbonaceous (gasoline, natural gas, coal, oil, etc.) material.

Cooling Tower – A cooling system used in industry to cool hot water (by partial evaporation) before reusing it as a coolant.

Continuous Emission Monitoring System (CEMS) – The total combined equipment and systems required to continuously determine air contaminants and diluent gas concentrations and/or mass emission rate of a source effluent.

Cyclone – A control device that uses centrifugal force to separate particulate matter from the carrier gas stream.

Federally Enforceable Specific Condition – A federally enforceable specific condition written to limit the potential to Emit (PTE) of a source that is permanent, quantifiable, and practically enforceable. In order to meet these requirements, the draft permit containing the federally enforceable specific condition must be placed on public notice and include the following conditions:

- A clear statement of the operational limitation or condition which limits the source's potential to emit;
- Recordkeeping requirements related to the operational limitation or condition;
- A requirement that these records be made available for inspection by LDEQ personnel;
- A requirement to report for the previous calendar year.

Grandfathered Status – those facilities that were under actual construction or operation as of June 19, 1969, the signature date of the original Clean Air Act. These facilities are not required to obtain a permit. Facilities that are subject to Part 70 (Title V) requirements lose grandfathered status and must apply for a permit.

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Lowest Achievable Emission Rate (LAER) – for any source, the more stringent rate of emissions based on the following:

a. the most stringent emissions limitation that is contained in the implementation plan of any state for such class or category of major stationary source, unless the owner or operator of the proposed stationary source demonstrates that such limitations are not achievable; or
b. the most stringent emissions limitation that is achieved in practice by such class or category of stationary source. This limitation, when applied to a modification, means the lowest achievable emissions rate for the new or modified emissions units within the stationary source. In no event shall the application of this term permit a proposed new or modified major stationary source to emit any pollutant in excess of the amount allowable under an applicable new source standard of performance.

NESHAP – National Emission Standards for Hazardous Air Pollutants – Air emission standards for specific types of facilities, as outlined in 40 CFR Parts 61 through 63.

Maximum Achievable Control Technology (MACT) – the maximum degree of reduction in emissions of each air pollutant subject to LAC 33:III.Chapter 51 (including a prohibition on such emissions, where achievable) that the administrative authority, upon review of submitted MACT compliance plans and other relevant information and taking into consideration the cost of achieving such emission reduction, as well as any non-air-quality health and environmental impacts and energy requirements, determines is achievable through application of measures, processes, methods, systems, or techniques.

NSPS – New Source Performance Standards – Air emission standards for specific types of facilities, as outlined in 40 CFR Part 60.

New Source Review (NSR) – a preconstruction review and permitting program applicable to new or modified major stationary sources of criteria air pollutants regulated under the Clean Air Act (CAA). NSR is required by Parts C ("Prevention of Significant Deterioration of Air Quality") and D ("Nonattainment New Source Review").

Nonattainment New Source Review (NNSR) – a New Source Review permitting program for major sources in geographic areas that do not meet the National Ambient Air Quality Standards (NAAQS) set forth at 40 CFR Part 50. NNSR is designed to ensure that emissions associated with new or modified sources will be regulated with the goal of improving ambient air quality.

Organic Compound -- any compound of carbon and another element. Examples: methane (CH_4), ethane (C_2H_6), carbon disulfide (CS_2).

Part 70 Operating Permit – also referred to as a Title V permit, required for major sources as defined in 40 CFR 70 and LAC 33:III.507.

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PM_{10} – particulate matter with an aerodynamic diameter less than or equal to a nominal 10 micrometers as measured by the method in Title 40, Code of Federal Regulations, Part 50, Appendix J.

Potential to Emit (PTE) – the maximum capacity of a stationary source to emit any air pollutant under its physical and operational design.

Prevention of Significant Deterioration (PSD) – a New Source Review permitting program for major sources in geographic areas that meet the National Ambient Air Quality Standards (NAAQS) at 40 CFR Part 50. PSD requirements are designed to ensure that the air quality in attainment areas will not degrade.

Selective Catalytic Reduction (SCR) – A non-combustion control technology that destroys NO_X by injecting a reducing agent (e.g., ammonia) into the flue gas that, in the presence of a catalyst (e.g., vanadium, titanium, or zeolite), converts NO_X into molecular nitrogen and water.

Sulfur Dioxide (SO_2) – An oxide of sulphur.

TAP – LDEQ acronym for toxic air pollutants regulated under LAC 33 Part III, Chapter 51, Tables 1 through 3.

"Top Down" Approach – An approach which requires use of the most stringent control technology found to be technically feasible and appropriate based on environmental, energy, economic, and cost impacts.

Title V permit – see Part 70 Operating Permit.

Volatile Organic Compound (VOC) – any organic compound which participates in atmospheric photochemical reactions; that is, any organic compound other than those which the Administrator of the U.S. Environmental Protection Agency designates as having negligible photochemical reactivity.